I claim:

1.A method for placing spacer uniformly and securely onto the substrate of a liquid crystal display element, comprising the steps of:

(a). Preparing an UV [or thermal] curable resin containing spacer particles.

(b) Dispersing certain amount of above spacer-resin mixture on a gravure cylinder with well finished designed cells to be used as the spacer-resin carrier.

(c) Removing excess spacer-resin mixture and forced spacer particle with resin into each hole by means of doctor knife.

(d) Transferring individual spacer-resin onto a second smooth surfaced roller according to the designed pattern by means of contact.

(e) Transferring individual patterned spacer –resin onto the surface of substrate of a liquid crystal display element from the second roller with any conventional coating methods.

2. A spacer-resin composition in part (a ) of claim 1 is comprising:

(a) An uniform size of spacer particles, either made of plastic or glass. The shape of spacer particles can be spherical or rod-like.

(b) UV or thermal curable (meth)acrylated oligomers.

(c) Vinyl monomers or (meth)acrylate monomers.

(d) Photo-initiators or thermal-initiators.

(e) Additives.

3. The additives in part (e) of claim 2 can be dispersants, surfactants, antioxidants, light - stabilizers and coating aids which aiding dispersing ability of spacer particles during mixing or impart other desirable properties to the spacer-resin mixture.

4. The gravure roller used in part (b) of claim 1 should made of hydrophobic, non-adhesive layer with thickness greater than twice of the diameter of the spacer particles.

5. The hydrophobic, non-adhesive layer in claim 4 is Teflon.

6. The hydrophobic, non-adhesive layer in claim 4 is a low surface energy fluorinated polymer.

7. The size of the hole in part (b) of claim 1 has an opening diameter and the depth both at 105-195% of the diameter of the spacer particle.

8. The gravure roller used in part (b) of claim 1 can be engraved the metal cylinder first, then coated with a thin layer of hydrophobic, non-adhesive coating.

9. The hydrophobic, non-adhesive thin layer in claim 8 is Teflon.

10. The hydrophobic, non-adhesive thin layer in claim 8 is a low surface energy fluorinated polymer.

11. A method for placing sealant uniformly and securely onto the substrate of a liquid crystal display element, comprising the steps of:

(a) Preparing an UV (or thermal) curable sealant containing spacer particles.

(b) Dispersing certain amount of above spacer-sealant mixture on a gravure cylinder with channel-like design pattern to be used as the spacer-sealant carrier.

(c) Removing excess spacer-sealant mixture and forced correct amount of spacer-sealant mixture into the channel.

(d) Transferring a strip of spacer-sealant mixture onto a second smooth surfaced roller according to the designed pattern by means of contact.

(e) Transferring the patterned spacer-sealant strip onto the surface of substrate of a liquid crystal display element from the second roller with any conventional coating methods.

12. An adhesive spacer-sealant composition in part (a) of claim 11 is comprising:

(a) An uniform size of spacer particles, either made of plastic or glass. The shape of spacer particles can be spherical or rod-like.

(b) UV or thermal curable (meth)acrylated oligomers.

(c) Vinyl monomers or (meth)acrylate monomers.

(d) An epoxy (meth)acrylates.

(e) Photo-initiators or thermal initiators.

(f) Additives.

13. The additives in part (f) of claim 12 can be dispersants, surfactants, antioxidants, light-stabilizers and coating aids which aiding dispersing ability of spacer particles during mixing or impart other desirable properties to the spacer-sealant mixture.

14. The gravure roller used in part (b) of claim 11 should made of hydrophobic, non-adhesive layer with thickness of greater than twice of the diameter of the spacer particles.

15. The hydrophobic, non-adhesive layer in claim 14 is Teflon.

16. The hydrophobic, non-adhesive layer in claim 14 is a low surface energy fluorinated polymer.

17. The depth of the channel in part (b) of claim 11 is about 105-195% of the diameter of the spacer particle.

18. The gravure roller used in part (b) of claim 11 can be engraved the metal cylinder first, then coated with a thin layer of hydrophobic, non-adhesive coating.

19. The hydrophobic, non-adhesive thin layer in claim 18 is Teflon.

20. The hydrophobic, non-adhesive thin layer in claim 18 is a low surface energy fluorinated polymer.

21. A method to bond two coated substrates to form a liquid crystal display device by radiation energies.

22. The radiation energy in claim 21 is ultra-violet radiation energy.

23. The radiation energy in claim 21 is thermal radiation energy.

24. The coated substrate in claim 21 is the substrate coated with spacer-resin as in claim 1.

25. The other coated substrate in claim 21 is the substrate coated with spacer-sealant as in claim 11.